

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P803525/WO/1	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/EP2004/007066	International filing date (day/month/year) 30.06.2004	Priority date (day/month/year) 08.07.2003
International Patent Classification (IPC) or national classification and IPC F16H61/14, F16H61/00		
Applicant DAIMLERCHRYSLER AG		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. ☒ (sent to the applicant and to the International Bureau) a total of 7 sheets, as follows:

☒ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

☒ Box No. I Basis of the report

☐ Box No. II Priority

☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

☐ Box No. IV Lack of unity of invention

☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

☒ Box No. VI Certain documents cited

☐ Box No. VII Certain defects in the international application

☐ Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

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International application No.

PCT/EP2004/007066

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language _____ which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1, 4-7, 9-13 _____ as originally filed/furnished
- pages* 2, 2a, 3, 3a, 8 _____ received by this Authority on 13.04.2005 with letter of 18.03.2005
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. _____ as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* 1-5 _____ received by this Authority on 13.04.2005 with letter of 18.03.2005
- nos.* _____ received by this Authority on _____
- ☒ the drawings:
- sheets 1/1 _____ as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-5	YES
	Claims		NO
Inventive step (IS)	Claims	2-5	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-5	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

- 1 This report makes reference to the following documents:

D1: US 4 526 557 A (ABO KEIJU ET AL) 2 July 1985
(1985-07-02)

D2: US 5 842 949 A (KURIYAMA MINORU)
1 December 1998 (1998-12-01)

D3: KUECUEKAY F ET AL: "GEREGELTE WANDLERKUPPLUNG
FUER DEN NEUEN 7ER VON BMW" ATZ
AUTOMOBILTECHNISCHE ZEITSCHRIFT,
FRANCKH'SCHE VERLAGSHANDLUNG. STUTTGART, DE,
vol. 96, no. 11, 1 November 1994 (1994-11-
01), pages 690-697, XP000478695 ISSN: 0001-
2785

D4: EP-A-1 074423 (SIEMENS AG) 7 February 2001
(2001-02-07)

2. D2, which is considered to represent the prior art closest to the subject matter of claim 1, discloses (the references in parentheses are to this document):

a process for operating a drive train of a

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

vehicle with a drive motor, a powershift automatic transmission, an externally actuated lockup clutch (10A) arranged between the drive motor and the automatic transmission and at least one control device (70), by means of which the automatic transmission and the clutch (10A) can be controlled, wherein, on detecting a requirement to downshift the automatic transmission, the control device increases slip on the clutch ("lockup release", see column 1, line 59 to column 2, line 5).

The subject matter of claim 1 thus differs from the process known from D2 in that

the control device sets a defined slip such that by increasing slip on the clutch a speed of the drive motor is constantly guided upwards towards a target speed after the downshift has been locked.

The subject matter of claim 1 is therefore novel (PCT Article 33(2)).

2. The problem addressed by the present invention may therefore be considered that of achieving a response to the requirement to downshift that is both spontaneous and smooth.

The solution to this problem proposed in claim 1 of the present application involves an inventive

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

step (PCT Article 33(3)). The reasons are:

Although D2, figure 8, shows a constantly increasing speed of the drive motor after a requirement to downshift, this increase is achieved by time-controlled release of the torque converter clutch without selective setting of a defined slip.

In D3, which likewise discloses all the features of the preamble (see page 693, paragraph 2.6, penultimate function), torque converter slip is selectively increased to a predefined higher value. However, D3 neither discloses nor suggests constantly guiding the speed of the drive motor upwards towards a target speed after locking the downshift.

3. Claims 2-5 are dependent on claim 1 and therefore likewise meet the PCT requirements for novelty and inventive step.

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Box No. VI Certain documents cited

1. Certain published documents (Rule 70.10)

Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
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2. Non-written disclosures (Rule 70.9)

Kind of non-written disclosure	Date of non-written disclosure (day/month/year)	Date of written disclosure referring to non-written disclosure (day/month/year)
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